UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

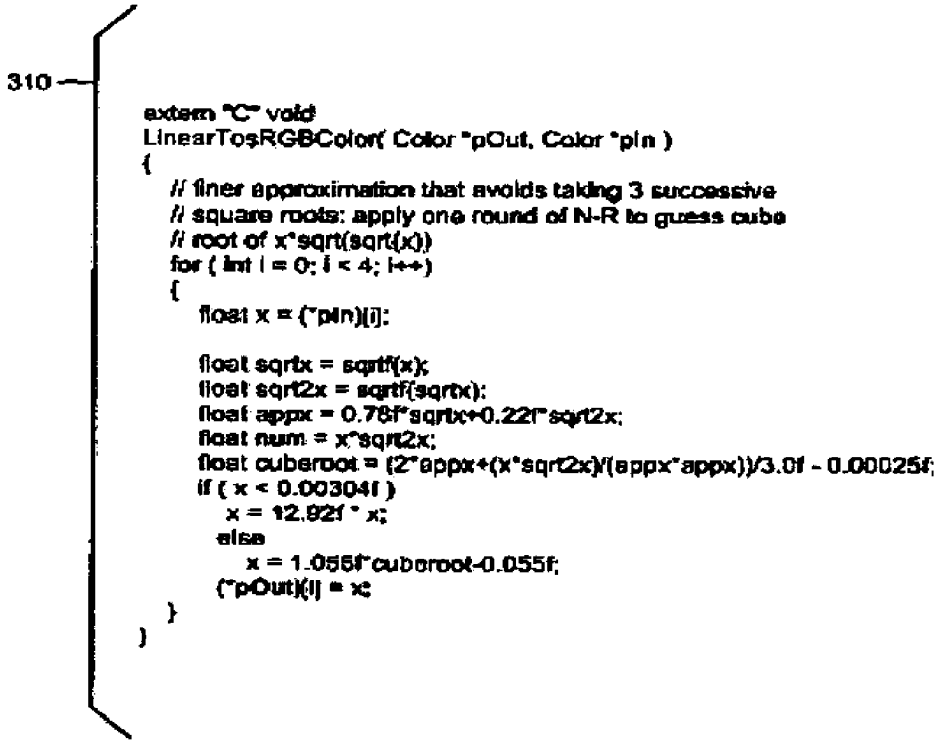
PATENT NO. : 6,954,214 B2
APPLICATION NO. : 09/780325
DATED : October 11, 2005
INVENTOR(S) : Wilt et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page, item (56), in "Other Publications", in column 2, line 12,
after "229-299" insert -- (1997) --.

In the drawings:
On Sheet 4 of 9, in FIG. 4, please replace "FIG. 4" with the following figure.

FIG. 4



Signed and Sealed this
Eighth Day of May, 2012

David J. Kappos

David J. Kappos
Director of the United States Patent and Trademark Office

In the drawings:
On Sheet 5 of 9, in FIG. 5, please replace "FIG. 5" with the following figure.

FIG. 5

400

```
const __declspec(align(16)) __m128 Const039 = _mm_set1_ps(
0.03928f );
const __declspec(align(16)) __m128 ConstInv1292 = _mm_set1_ps(
1.0f/12.92f );
const __declspec(align(16)) __m128 Const055  = _mm_set1_ps( 0.055f
);
const __declspec(align(16)) __m128 ConstInv1055 = _mm_set1_ps(
1.0f/1.055f );

const __declspec(align(16)) __m128 Const1285 = _mm_set1_ps(
1.285f );
const __declspec(align(16)) __m128 Const0285 = _mm_set1_ps(
0.285f );
```

In the drawings:
On Sheet 6 of 9, in FIG. 6, please replace "FIG. 6" with the following figure.

401

FIG. 6

```
extern "C" void
sRGBColor( Color *pOut, Color *pIn )
{
   // SIMD: compute BOTH answers and compose output using mask
   __m128 ansBelowDelta = _mm_mul_ps( *(__m128 *) pIn, ConstInv1292 );
   __m128 x = _mm_mul_ps( ConstInv1055, _mm_add_ps( *(__m128 *) pIn,
Const055 ) );
   __m128 sqrx = _mm_mul_ps( x, x );
   __m128 invsqrx = _mm_rcp_ps( sqrx );
   __m128 invsqrtx = _mm_rsqrt_ps( x );
   __m128 ansAboveDelta = _mm_div_ps( Const1285,
                  _mm_mul_ps( invsqrx, _mm_add_ps( Const0285, invsqrtx ) ) );
   __m128 TrueIfLTDelta = _mm_cmplt_ps( *(__m128 *) pIn, Const039 );
   *(__m128 *) pOut = _mm_or_ps( _mm_and_ps( TrueIfLTDelta, ansBelowDelta
),
                        _mm_andnot_ps( TrueIfLTDelta, ansAboveDelta ) );
}
```

In the drawings:

On Sheet 7 of 9, in FIG. 7, please replace "FIG. 7" with the following figure.

500

FIG. 7

```
const __declspec(align(16)) __m128 CONST00304 = _mm_set1_ps( 0.00304f );
const __declspec(align(16)) __m128 CONST1292 = _mm_set1_ps( 12.92f );
const __declspec(align(16)) __m128 CONST055  = _mm_set1_ps( 0.055f );
const __declspec(align(16)) __m128 CONST1055 = _mm_set1_ps( 1.055f );

const __declspec(align(16)) __m128 CONST078 = _mm_set1_ps( 0.78f );
const __declspec(align(16)) __m128 CONST1m078 = _mm_set1_ps( 1.0f-0.78f );

const __declspec(align(16)) __m128 CONST38 = _mm_set1_ps( 0.38f );
const __declspec(align(16)) __m128 CONST1m38 = _mm_set1_ps( 1.0f-0.38f );

extern "C" void
LinearTosRGBColor( Color *pOut, Color *pIn )
{
   __m128 ansBelowDelta = _mm_mul_ps( *(__m128 *) pIn, CONST1292 );
   __m128 sqrtx = _mm_sqrt_ps( *(__m128 *) pIn );
   __m128 sqrt3x = _mm_sqrt_ps( _mm_sqrt_ps( sqrtx ) );
   __m128 pow124 = _mm_add_ps( _mm_mul_ps( CONST38, sqrtx ),
                     _mm_div_ps( _mm_mul_ps( CONST1m38, sqrtx ), sqrt3x ) );
   __m128 ansAboveDelta = _mm_sub_ps( _mm_mul_ps( CONST1055, pow124 ), CONST055 );
   __m128 TrueIfLTDelta = _mm_cmplt_ps( *(__m128 *) pIn, CONST00304 );
   *(__m128 *) pOut = _mm_or_ps( _mm_and_ps( TrueIfLTDelta, ansBelowDelta ),
                        _mm_andnot_ps( TrueIfLTDelta, ansAboveDelta ) );
}
```

In the drawings:

On Sheet 8 of 9, in FIG. 8, please replace "FIG. 8" with the following figure.

500

FIG. 8

```
const __declspec(align(16)) __m128 Magic00304 = _mm_set1_ps( 0.00304f );
const __declspec(align(16)) __m128 Magic1292 = _mm_set1_ps( 12.92f );
const __declspec(align(16)) __m128 Magic055 = _mm_set1_ps( 0.055f );
const __declspec(align(16)) __m128 Magic1055 = _mm_set1_ps( 1.055f );
const __declspec(align(16)) __m128 MagicInv3 = _mm_set1_ps( 1.0/3.0f );
const __declspec(align(16)) __m128 MagicFudge = _mm_set1_ps( 0.00025f );

const __declspec(align(16)) __m128 Magic078 = _mm_set1_ps( 0.78f );
const __declspec(align(16)) __m128 Magic1m078 = _mm_set1_ps( 1.0f-0.78f );

const __declspec(align(16)) __m128 Magic38 = _mm_set1_ps( 0.38f );
const __declspec(align(16)) __m128 Magic1m38 = _mm_set1_ps( 1.0f-0.38f );

extern "C" void
LinearTosRGBColor( Color *pOut, Color *pIn )
{
  __m128 ansBelowDelta = _mm_mul_ps( *(__m128 *) pIn, Magic1292 );
  __m128 sqrtx = _mm_sqrt_ps( *(__m128 *) pIn );
  __m128 sqrt2x = _mm_sqrt_ps( sqrtx );
  __m128 appx = _mm_add_ps( _mm_mul_ps( Magic078, sqrtx ),
                _mm_mul_ps( Magic1m078, sqrt2x ) );
  __m128 cuberoot = _mm_sub_ps(
              _mm_mul_ps( MagicInv3,
                _mm_add_ps( _mm_add_ps( appx, appx ),
                  _mm_div_ps( _mm_mul_ps( *(__m128 *) pIn, sqrt2x ),
                    _mm_mul_ps( appx, appx )
                  )
                )
              ), MagicFudge
            );
  __m128 ansAboveDelta = _mm_sub_ps( _mm_mul_ps( Magic1055, cuberoot ), Magic055 );
  __m128 TrueIfLTDelta = _mm_cmplt_ps( *(__m128 *) pIn, Magic00304 );
  *(__m128 *) pOut = _mm_or_ps( _mm_and_ps( TrueIfLTDelta, ansBelowDelta ),
                     _mm_andnot_ps( TrueIfLTDelta, ansAboveDelta ) );
}
```

In column 3, line 5, delete "modern" and insert -- modem --, therefor.

In column 3, line 32, delete "$x^{1/24}$" and insert -- $x^{1/2.4}$ --, therefor.

In column 6, line 63, delete "$x^{1/2.4} = \sqrt[3]{x^{1.25}}$" and insert -- $x^{1/2.4} = \sqrt[3]{x^{1.25}}$ --, therefor.

In column 6, line 64, after "which" insert -- can be --.

In column 8, line 1, delete "x^{05}" and insert -- $x^{0.5}$ --, therefor.

In column 8, line 40, delete "un-altered" and insert -- unaltered --, therefor.

In column 12, line 6, in Claim 8, after "having" delete "in" and insert -- an --, therefor.